Saskatchewan Ministry of Agriculture

CROP PRODUCTION NEWS

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PRODUCTION

CROP PRODUCTION

Editor's Comments

By Ray McVicar, Crops Branch

The growing season is coming to an end and this is our last edition of the 2009 Crop Production News (CPN). I want to thank Faye Dokken, Sean Miller and David Goodwillie for their work in putting together the CPN, and all of our authors for their great articles this year.

It would be very much appreciated if you could let us know how we did in 2009, and what topics you would like to see included in the 2010 CPN. Please send us your feedback. Is the CPN meeting your information needs for crop pest and production issues? Please fill out this short questionnaire and return it by copying and emailing it to: ray.mcvicar@gov.sk.ca; or by printing and faxing it to: (306) 787-0428.

What article topics were most beneficial in the 2009 Crop Production News?

- ☐ Crop Protection Lab updates
- ☐ Insect updates, surveys and forecasts
- ☐ Plant disease updates
- ☐ Vertebrate pest control and cautions
- ☐ Forage production
- ☐ Pesticide updates
- ☐ Other: _____
- ☐ Organic crop updates
- ☐ Soil / fertility issues
- ☐ Stubble management
- ☐ New crops / Horticulture crops
- ☐ Pulse / Cereal / Oilseed production
- ☐ Field Days / Events

What crop pest / production issue information should we provide next year?

Thank you for your feedback and your participation in the 2009 Crop Production News!

Saskatchewan Agriculture's *Crop Report* provides details about harvest progress across the province. Visit the website at www.agriculture.gov.sk.ca/Crop-Report.

NOTE: Throughout this document, you will see that some publications are in blue font and underlined, indicating links to website information. If you are reading this on your computer screen, press the CTRL button and click your cursor on the link to take you directly to the website. ☼

Crop Production News is a biweekly publication prepared primarily by provincial specialists with the Crops Branch of the Saskatchewan Ministry of Agriculture. It is a compilation of articles related to entomology, plant pathology, weed science, soils and agronomy issues.

Please do not use any of these articles for any other purpose without first asking the author's permission.

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The Crop Protection Lab: A look back at 2009

By Philip Northover, Supervisor, Crop Protection Laboratory

The Crop Protection Laboratory has seen a number of changes this year. We would like to welcome Jaclyne Shiplack, Plant Technician, who recently joined our other team members, Carla Weitzel, Plant Health Technician, and Philip Northover, Supervisor, at the Crop Protection Laboratory.

The cool weather caused a delay in crop production this year and also impacted sample arrival. Submissions to the lab have continued into mid-September for problems that are typically associated with early season events.

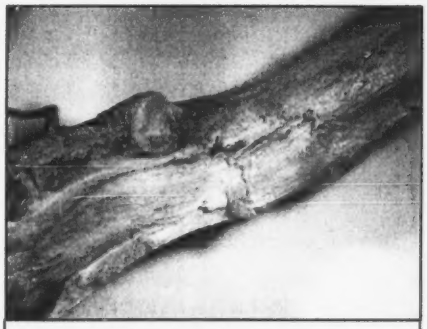

Figure 1: Fusarium wilt on mustard.
Source: Crop Protection Laboratory.

The Dutch elm disease (DED) survey is virtually complete, and as of mid-August a total of 344 samples have been turned in, a significant increase from last year (285). For more information, please see the DED article in this edition of the Crop Production News.

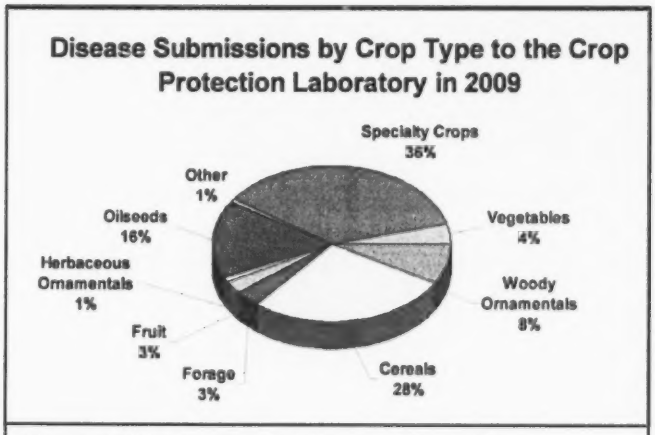

Figure 2: 2009 Disease submissions, mid-September.
Source: Crop Protection Laboratory.

Figure 2 outlines the plant disease samples (excluding DED) that have been submitted as of mid-September. Lentils, peas, wheat, and canola samples represented the bulk of the submissions in 2009. On lentils, herbicide related problems, *Ascochyta*, *Sclerotinia, Stemphylium* and a number of root rot fungi were identified, likely as a result of the slow start and cool weather for much of the summer.

Diagnoses of root rots in all field crops was common in 2009, notably in cereals, lentils, peas and oilseeds such as *Fusarium oxysporum* on mustard (*Figure 1*).

In cereals, sooty mold samples have recently been submitted, a result of secondary infections.

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Crop Protection Lab Update: A look back at 2009
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Of the other crops listed in *Figure 2*, the majority of disease submissions were the result of unusually prolonged wetness and cool temperatures, and included downy mildew, black molds, late blight of potato and tomato, crown rot of alfalfa, and a variety of leaf spots.

Plant identification submissions have increased slightly from last year. Brome grasses (*Bromus* spp.), members of the Asteraceae (sunflower family), Fabaceae (pea family), and Apiaceae (parsley family) were the more commonly submitted plants in 2009. More plant identification samples were recently submitted, among them water hemlock (*Cicuta* spp.).

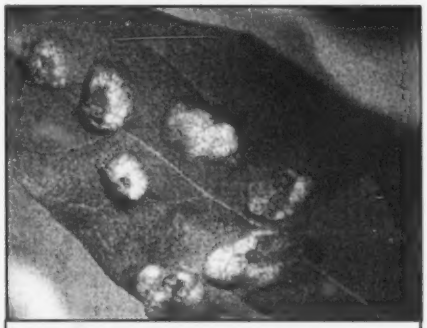

Figure 3: Maple bladder gall.
Source: Crop Protection Laboratory.

Insect submissions in 2009 were collected from a range of environments, including homes and agricultural fields. Towards the end of August, a number of insect-related problems on trees were turned in, notably maple bladder gall mite (*Vasetes* spp.) (*Figure 3*) and poplar leaf mining weevil (*Rhyncaenus* spp.) that concerned some homeowners due to the dramatic appearance of the symptoms.

With the growing season coming to a close, the emphasis in the lab turns to isolation and identification of species of *Fusarium* fungi as part of the fusarium head blight survey. The lab will also be determining if weed seed submissions have developed resistance to specific herbicide groups, and will be examining honey bee samples for mite related problems.☼

For information about submitting samples to Saskatchewan Agriculture's Crop Protection Lab, go to www.agriculture.gov.sk.ca (Programs & Services > Crop Protection Lab Services); Or phone (306) 787-8130.

Dutch Elm Disease Summary

By Brianna Brown, Dutch Elm Disease Technician

As of mid-August the Crop Protection Lab had received 344 Dutch elm disease samples, of which 204 tested positive. Last year at this time, the lab had processed 285 samples, and 184 were positive. In 2009, the increased number of samples that were submitted, and the lower number of positive results, can be attributed to thorough surveillance and removal programs, as well as increased public awareness.

Figure 4: Dutch elm disease symptoms. Source: Saskatchewan Agriculture.

Fort Qu'Appelle and Indian Head continued to be the most severely affected communities in the province. Fort Qu'Appelle and the surrounding area had 102 infected trees this year, a significant increase from 67 in 2008. Indian Head had 17 infections, up from 16 last year. Moose Jaw had 10 infections, compared to seven in 2008. Estevan had five infected trees, a decrease from last year's seven. Regina Beach lost eight trees, an increase from last year's seven. Regina lost two trees this year, compared to five in 2008. Regina has shown a steady decline from 11 in 2007. Saskatoon remains free of Dutch elm disease.

For the Dutch elm disease program to be effective, it is necessary that the public cooperates with the pruning ban that prohibits pruning between April 1 and August 31. The pruning ban is in place because during that time the elm bark beetle, which transports the fungus, is the most active and is attracted to the smell of freshly cut wood. It is also illegal to transport elm wood for any purpose, other than for proper disposal.

If you would like more information on Dutch elm disease, or suspect an elm is infected, please contact the Dutch Elm Disease hotline at 1-800-SASKELM.☼

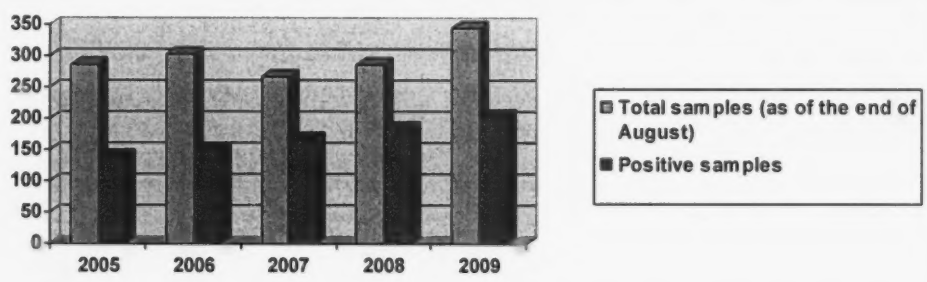

Figure 5: Dutch elm disease samples. Source: Crop Protection Laboratory.

Insect Pests and Surveys for 2009

By Scott Hartley, Provincial Specialist, Insect / Vertebrate Pests

Due to the cool conditions in the spring and early summer, insect pests were generally not of serious concern for many producers in 2009. However, there were significant problems with some crops, depending on the timing of infestations with respect to crop stage and location in the province.

Flea beetle populations have been gradually increasing over the past few years and required foliar sprays in some situations in 2009. In most cases, the seed treatments used were sufficient for controlling the beetles, but due to the slow growth of canola and extended period of insect feeding, there were situations where the insecticide was no longer effective. In addition, there were reports of late infestations as the new adult generation emerged and affected podded canola. This pest may be a greater problem in 2010 if fall populations are high and spring conditions are warm and dry.

Cutworms were the most common insect pest reported in June for many areas of the province. There were a number of different cutworms noted, including both below ground and foliar feeding species. Due to the cool temperatures in 2009, feeding extended longer than most years, with some reports of damage continuing into early July. There are no reliable methods for forecasting cutworm populations, but similar to the past few years, cutworms will likely be a problem in 2010.

There are two relatively new insect pests affecting production in southwest Saskatchewan; the pea leaf weevil and cabbage seedpod weevil.

As the name suggests, the **pea leaf weevil** is primarily a pest of pea crops. First found in Saskatchewan in 2007, surveys have indicated the pest's range has now extended from the Alberta border to east of Highway #4. The northern boundary of distribution appears to be the South Saskatchewan River. Control can be achieved through seed treatment or foliar treatment. Due to the recent introduction of this pest, seed treatments may not be a cost-effective measure unless damage was noted in the previous year. Damage has been variable from field to field, with some serious infestations requiring foliar insecticide application.

The **cabbage seedpod weevil** has also continued to expand east and north from the southwest. Although the main economic infestations are still reported in southwest Saskatchewan, surveys have found weevils near Regina, and in 2008, within 70 km of Saskatoon. Samples from the 2009 survey are currently being processed and data will be mapped by Agriculture and Agri-Food Canada (AAFC) later this fall.

The 2009 **Wheat Midge** Forecast indicated a reduced risk compared to the previous year, but with hot spots in a few locations. With the slow accumulation of heat units in 2009, wheat midge emergence was delayed. The effect of dry conditions also delayed development and emergence of the adult midge as emergence requires a minimum of 20 mm of precipitation prior to the end of May.

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Insect Pests and Surveys for 2009
(Continued from page 5)

These factors, along with variable staging of wheat crops due to extended seeding dates and slow development, meant that wheat midge infestations and the necessity for spraying varied dramatically around the province. In most areas, the start of wheat midge emergence was noted the second week in July, at least a week to 10 days later than most years. The fall soil survey to estimate the number of midge cocoons and parasites is underway. Data will be compiled and a risk map produced for Saskatchewan in 2010.

Aphids became a problem for producers in July and August. Pea was the most common crop where infestations were reported, but there were also higher infestations noted in cereals, primarily durum wheat and barley. Some lentil and canaryseed crops also had aphid populations requiring control. Infestations of aphids that are approaching economic threshold levels are difficult to predict, as they are usually related to incoming wind currents during the growing season rather than over-wintering populations.

Diamondback moths and **bertha armyworms** are major pests affecting canola. In 2009, neither pest was reported in high numbers, although there were a few isolated situations where spraying was required. Wind trajectories were reviewed by AAFC in Saskatoon and pheromone traps were distributed around the province. The highest number of diamondback moths was found in the Indian Head area. The Bertha Armyworm Monitoring Program, also utilizing pheromone lures, included about 200 traps in Saskatchewan in 2009. As with the other insects, emergence of the moths was later than most years, with no occurrences reported until late June. No high risk areas were identified this year.

The 2009 risk map for **grasshoppers** indicated low risk for most areas of Saskatchewan. Climatic conditions were not conducive to grasshopper development early in the season. However, when temperatures warmed in July, there were a number of reports of late season infestations in pulse crops, primarily lentil, and cereals, primarily durum. As in late 2008, there were also some concerns of higher populations of grasshoppers feeding on canola pods. There were also reports of grasshoppers in flax, consuming the green bolls, and in chickpea and lentil. ☼

Richardson's Ground Squirrel Management

By Scott Hartley, Provincial Specialist, Insect / Vertebrate Pests

Management of Richardson's ground squirrels (RGS) is labour-intensive and costly, especially if infestations are severe. Two of the main goals of the current RGS control research are to investigate methods of reducing labour requirements and to ensure effectiveness of the rodenticides.

Because hand-baiting of individual holes is especially time-consuming, utilizing bait

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Richardson's Ground Squirrel Management
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stations that can be refilled periodically is one option for producers. Bait stations can only be used with a rodenticide registered for above-ground use and should only be used in the spring. All bait stations for RGS control should be removed by late June to reduce the risk of injury to non-target species.

Two products registered for use in bait stations are chlorophacinone (Rozol) and strychnine ready-to-use baits. **Baits prepared from two per cent liquid strychnine concentrate, made available through the Emergency Use Registration in 2009, are not allowed for use in bait stations.**

As with any pest-control product, it is very important to follow label directions. There are important considerations for proper bait station use. The correct use of toxic compounds is critical to prevent accidental exposure and unacceptable environmental damage. Misuse of toxic baits could result in reduced availability and tighter restrictions on rodenticides in the future.

The Saskatchewan Association of Rural Municipality's label for their read-to-use strychnine bait provides guidelines for the proper construction and set up of a bait station. The label reads as follows:

Place bait in a tamper resistant bait station and replenish baits as necessary. Remove and bury any dead animals because they can present a significant poisoning hazard to predatory animals. Do not place bait above ground where it is exposed to non-target species unless it is in a tamper-resistant bait station. If above-ground bait stations are to be used, they must meet the following criteria:

1. Resistant to destruction or weakening by elements of typical non-catastrophic weather (e.g. snow, rain, extremes of temperature and humidity, direct sunshine).
2. Capable of being locked or sealed so that children and non-target animals cannot gain access through the opening or the access used to fill the bait compartment(s).
3. Strong enough to prohibit entry or destruction by dogs and by children under six years of age using their hands, their feet, or objects commonly found in the use environment (e.g. sticks, stones, broken glass, etc.- stations stronger than "tamper-resistant" are needed in areas frequented by hoofed livestock, raccoons, bears, other potentially destructive animals, or in areas prone to vandalism).
4. Equipped with rodent entrances which: a) readily allow target animals access to baits, b) deny such access to animals larger than adults of the target species, and c) discourage entry by birds. Means for achieving these ends might include use of baffles, mazes, or small entrances.
5. Be anchored securely to contain contents, or equipped with a mechanism which virtually prevents bait from being shaken out of the station after it has been moved.
6. Equipped with internal structures for containing baits and minimizing spillage and tracking of bait outside of the station or into readily accessible parts of the station.
7. Made of a design and color that is not especially attractive to children.
8. Capable of displaying precautionary statements in a prominent location. ✿

Fall Soil Testing: a critical component of nutrient management

By Ken Panchuk, Provincial Specialist, Soils

As soon as harvest is completed, it will be time to go back to the field for soil testing. Soil testing can begin any time after the soil cools to below 10 C. This usually occurs about the end of the first week of October.

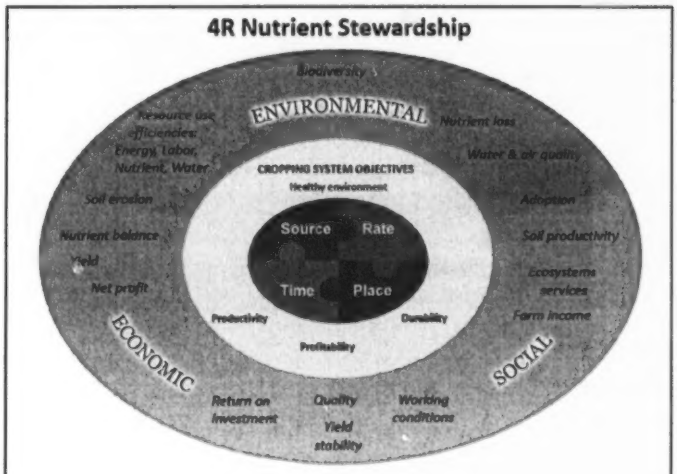

Figure 6: Nutrient Stewardship Program.
Source: International Plant Nutrition Institute.

Fall banding of urea and anhydrous can also begin when the soils have cooled to below 10 C. Late fall banding remains a "Best Management Practice" in Saskatchewan because the soils are cool enough just before freeze up to keep banded urea and anhydrous in the stable ammonium form, adhering to soil particles and soil organic matter, throughout winter. Having the nitrogen in ammonium form until spring thaw minimizes its loss through the denitrification process, that is, loss of nitrogen as nitrogen gas or as nitrous oxide.

Figure 7: Subsoil moisture testing.
Source: Saskatchewan Agriculture.

The soil nutrient industry is moving to a universal program that refers to effective and appropriate nutrient stewardship. The four "rights" (4Rs) describe the concept of applying the **right fertilizer source**, at the **right rate**, **right time**, and **right place**. Fall soil testing and fall banding urea and anhydrous ammonia fit well within this nutrient stewardship program for Saskatchewan conditions. *Figure 6* describes the components of the nutrient stewardship program.

An important part of soil testing is to determine a realistic target yield for crop planning. Measuring the moisture recharge at freeze up will provide valuable information for determining realistic target yields for the next growing season.

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Fall soil testing – a critical component of nutrient management
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These target yields are updated again once the frost is out of the ground in the spring to account for snow melt and spring rains. This allows for timely adjustments to crop inputs.

Measuring subsoil moisture is easy to do with a homemade subsoil moisture probe (*Figure 7*). The probe can be made in any farm shop using a four foot long half-inch rod, a 5/8 inch steel ball and a one-foot-long heavy walled pipe. The heavy walled pipe handle works best because sometimes you will need to hammer the rod through a few inches of frozen soil in late fall. It is hard to predict when fall freeze up is going to occur, so start soil testing and fall banding soon after the soil cools to below 10 C. ✿

Organic Update

By Chantal Jacobs, Provincial Specialist, Organic Crops

Saskatchewan is home to roughly 1,300 certified organic growers, who farm approximately 56 per cent of the certified organic land in Canada. Producers are interested in market access and new organic research, and this summer, 10 organic field days were successfully hosted by various organizations throughout Saskatchewan.

Figure 8: Organic wheat tour in Oxbow, SK. Source: Andrew Hammermeister, Organic Agriculture Centre of Canada.

The organic field days demonstrated unique farm management practices and active research projects, while discussions included crop rotation, weed management, green manure termination and organic marketing. Reducing tillage while managing green manures is a common challenge for all organic growers, and one field day highlighted the use of sheep to graze and incorporate green manures. Several tours demonstrated the crimper roller concept, which kills the green manure crop with minimal soil disturbance, while leaving crop residue on the soil surface. Many other organic systems and projects were toured over the summer. For more information on specific field days and upcoming events, email chantal.jacobs@gov.sk.ca to sign up for the monthly *Stay Connected – Organic Update* email update.

The Saskatchewan Organic Directorate recently launched their *Organic Producer Directory*. This service is a marketing tool that provides consumers and buyers with access to organic products in Saskatchewan and Alberta. The Directory lists products as "Consumer Direct" or "Wholesale", to help local consumers and large buyers determine what is sold bulk and what is sold at the farm gate. The Directory is searchable by region and commodity, providing detailed information to a variety of buyers and potential networking opportunities for organic growers. To check out the *Organic Producer Directory*, go to www.saskorganic.com and click on "*Find Organic Commodities in Your Area*!" ✿

Varietal Blends in Midge Tolerant Wheat

By Blaine Recksiedler, Provincial Specialist, Cereal Crops

Two Canada Western Red Spring (CWRS) varieties with tolerance to wheat midge will be available for commercial production in 2010. Two additional varieties, one CWRS and one Canada Western Extra Strong, will be available in 2011. Wheat varieties with this tolerance show significantly less damage from feeding caused by wheat midge larvae, and consistently grade better under midge infestations compared to susceptible varieties.

The purpose of using varietal blends is to preserve the midge tolerance technology. It took more than 15 years for researchers to transfer the single *Sm*1 gene tolerance into spring wheat and no other source of midge tolerance has been identified. Single gene tolerance has a history of becoming ineffective over time as insect populations change. Therefore, an interspersed refuge system is necessary to prevent buildup of the virulent midge population. It is estimated that without a refuge, the effectiveness of the gene could be lost within 10 years; whereas, with a refuge system, the effective life of this midge tolerance could last 100 years.

An interspersed system means that the refuge variety will be evenly distributed throughout the field. This is different than other refuge management systems that may have the refuge grown in a block beside or within the same field. Since wheat midge is a weak flyer, it was determined that an interspersed system was superior to other methods. The interspersed refuge system will be a varietal blend of 90 per cent tolerant and 10 per cent susceptible varieties. Blending of the varieties will occur at the Breeder Seed stage of pedigreed seed production.

If midge tolerant varieties are grown in pure stands, the surviving midge would carry a mutation for virulence against the *Sm*1 gene. These surviving midge would mate with other surviving midge, thereby quickly building up a large population that can survive on otherwise tolerant varieties. The purpose of the 10 per cent susceptible portion of the blend is to provide a small refuge for the majority of the current population of midge. These non-virulent midge (non-virulent to the tolerant varieties) will survive on the 10 per cent susceptible plants and mate with the midge that has undergone the mutation for virulence. The progeny of this inter-mating will be non-virulent, and the effectiveness of the gene will remain intact.

There will likely be a small amount of damage to the kernels of the tolerant varieties. This is a function of how the *Sm*1 gene works. When the midge larvae begin to feed on the kernel, the *Sm*1 gene causes the level of phenolic compounds to elevate more rapidly than in wheat kernels without the *Sm*1 gene. The higher levels of phenolic compounds cause the midge larvae to stop feeding and the larvae starve to death. These phenolic compounds are naturally occurring and return to normal levels when the kernel is mature, and do not affect the quality of the harvested grain.

For more information on wheat midge and a forecast map, see the Saskatchewan Agriculture publications *Wheat Midge* and *Wheat Midge Forecast Map* on the Saskatchewan Agriculture website www.agriculture.gov.sk.ca/Production (Scroll down to Crops – Insects, then *Wheat Midge* or *Wheat Midge Forecast Map*). ✿

Fire Blight in Fruit Trees in 2009

By Forrest Scharf, Provincial Specialist, Fruit Crops

Of the diseases that affect fruit crops grown in Saskatchewan, fire blight is the most damaging. It affects our orchards in an irregular manner, with some years having very few occurrences, and others having widespread infection. Severe outbreaks of this bacterial disease are thought to follow a five to six year infection cycle, and conditions that favour the disease include warm, wet weather during bloom time, or severe thunderstorm and hail activity during summer. Even though the 2009 bloom period in Saskatchewan was neither warm, nor wet, and summer storms and hail were not exceptional, fire blight was widespread and severe in many different areas of the province. This may have been a high year in the infection cycle, but infection is also suspected to have been associated with the long bloom period, much greater than average levels of winter plant injury, and perhaps higher than normal bacterial canker contact by pollinating insects such as flies, bumble bees and wild bees. Honey bee pollinator activity was unusual in that through much of the bloom period, temperature conditions were too cold for them to be active.

Figure 9: Fire blight symptoms. Source: Saskatchewan Agriculture.

The bacterial pathogen causing fire blight is *Erwinia amylovora.* This type of bacteria is known to have physiological effects on pigment production, and contain plasmids (genetic strands of nucleic acid that replicate independently of the essential chromosomes found in the organism). Plasmids can use enzymes in the bacteria to create many different substances, and through a process called "conjugation", plasmids also allow for interchange of genetic material (in some cases between very distantly related cells). Often the factors that allow micro-organisms to become virulent, or to produce substances that damage host organisms, are found in the plasmids (this is likely the case for fire blight, but this has not been thoroughly established).

The typical and most striking symptoms of fire blight infection are what give the disease its common name. Infection generally starts in the new growth and flowering areas of plants, where the bacteria can rapidly kill the plant tissues. The dead tissue appears to be burnt, and the young branches often keel over at the tip creating a "shepherd's crook" appearance. In cultivars with little genetic resistance, the disease will often completely kill the top growth and will sometimes kill the roots.

The 2009 conditions appear to have allowed the disease to infect plants that are normally less susceptible. Susceptibility is dependent upon host plant genetics and overall plant health.

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Fireblight in Fruit Trees in 2009
(Continued from page 11)

Fruit crops that are members of the "rose" family are susceptible, especially the sub-family *Pomoideae* (such as apples, pears, saskatoons, and hawthorns). The disease had almost no history of infecting stone fruit (like sour cherries) in Saskatchewan, until this summer. There were also several reports of non-fruit species like mountain ash and cotoneaster falling prey. The variety of *Erwinia amylovora* that infects raspberries is considered to be genetically distinct, as it does not infect the other susceptible species of plants, but fire blight symptoms did appear in some raspberry patches in 2009.

There were several examples of infected apples and saskatoons this year. The susceptible "Norland" apple cultivar, which was recommended to apple growers as a pollinator, was completely killed out in several orchards. Some saskatoon berry and pear infections were suspected to have been inoculated from a cotoneaster hedge that had previously been infected. The "Northline" cultivar of saskatoons appeared to have greater resistance to the disease than some other cultivars at one orchard location.

There are a few relatively new control products that can mitigate disease damage in an orchard. Oxytetracycline or streptomycin are two bacteriacides that are effective as preventive sprays. Apogee (prohexadione-calcium) is a growth regulator that inhibits gibberellic acid production (hormones responsible for elongation of plant shoots) and helps control fire blight while reducing the need for pruning. A biological control product that is available called BlightBan C9-1 was created from the culture of *Pantoea agglomerans* non-pathogenic bacteria isolated from a commercial Gala apple orchard in Washington State. This bacteria inhabits the same blossom environment that fire blight bacteria infect, and therefore, inhibits the ability of the disease to infect and spread.

A tool that has recently become available to positively identify the fire blight bacteria is available from www.bioreba.ch and is called a "quick strip". The test relies on an antigen/antibody reaction for *Erwinia amylovora* identification.

For more information, please contact Forrest Scharf at (306) 787-4666 or email at forrest.scharf@gov.sk.ca. ✿

Camelina Day: A Learning Opportunity for Saskatchewan Producers

By Venkata Vakulabharanam, Provincial Specialist, Oilseed Crops

Camelina or false flax, a potential new oilseed crop for the prairies, has been garnering a lot of attention in the past few years. This is in part due to a worldwide interest in bio-fuels. Other possible bio-based products include fish feed, bio-lubricants and healthy oil. Most recently, the jet fuel market has emerged as a potential business opportunity for camelina oil.

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Camelina Day – A Learning Opportunity for Saskatchewan Producers
(Continued from page 12)

Camelina is well adapted to Saskatchewan growing conditions. It is highly heat and drought tolerant, shatter resistant and matures relatively early, making it suitable for warm and dry regions of Saskatchewan. Producers can sometimes be cautious when adopting new crops like camelina, but success stories such as lentil in the 1970s prove Saskatchewan producers are willing and able to adapt.

Figure 10: Camelina in full flower.
Source: Saskatchewan Agriculture.

Keeping producers' information needs in mind, Crops Branch is organizing a Camelina Day on November 4, 2009, at the Travelodge South Hotel in Regina. This information day, *first of its kind in Western Canada*, is being planned with help from Regional Crop Specialists and camelina researchers from Agriculture and Agri-Food Canada, the University of Saskatchewan, and the University of Alberta.

Organizers are also planning to bring several important members of the fledgling camelina industry to Regina. Topics to be covered include production, research and marketing. Speakers will provide agronomic information and various camelina purchasers, crushers, and contractors from Canada and the United States will provide market information.

Registration for the meeting is now available; and the pre-registration deadline is October 16, 2009. Please call the Agriculture Knowledge Centre at 1-866-457-2377 (toll-free) to register. Pre-registration cost is $20 and the cost is $30 after the pre-registration deadline. Registration includes refreshments and lunch. The registration fee will be collected at the door, cash only please (no cheques, credit card or debit). Registration is limited owing to the capacity of the Travelodge South, so please register early.

For futher information, please contact Venkata Vakulabharanam at (306)787-4668 or venkata.vakulabharanam@gov.sk.ca ✿

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